

SOME NEW OR LITTLE-KNOWN BEES.—IV.

BY CHARLES ROBERTSON, CARLINVILLE, ILLINOIS.

ANTHEMURGUS, gn. nov.

Glossa lanceolate, shorter than mentum; paraglossæ reaching to joint 4 of labial palpi; maxillary palpi six-jointed, longer than lamina, joints short; labial palpi with joints subequal, first one robust; marginal cell about as long as first discoidal, obliquely truncate, appendiculate; cubital cells equal, second receiving the first recurrent nervure about one-third from base and the second near apex; facial foveæ present in both sexes; tibial scopa of female thin, with rather long simple hairs.

A. passifloræ, sp. nov.—♀. Black, shining; head coarsely punctured; mesonotum closely and finely punctured, also with some scattered coarser punctures, trisulcate anteriorly; metathorax with the disc rather finely reticulated, the sides finely punctured; abdomen with apical margins of segments 1-4 shining, impunctate, segment 1 sparsely, 2-5 more closely, punctured; labrum with shining space broader at base and apex; mandibles rufous; apical half of wings clouded; middle metatarsus broader than hind one; middle spur finely pectinate, about one-fifth the length of the metatarsus; pubescence thin, short, longer on the legs, sides of metathorax and segments 5-6 of abdomen; pale, except on segments 5-6, where it is blackish. Length, 8 mm.

♂.—Resembles the female; mandibles, anterior tibiæ in front, and sometimes middle ones, and all the tarsi, reddish; a longitudinal yellow stripe on the clypeus and on each side of face. Length, 8 mm.

Carlville, Illinois; 7 ♀, 5 ♂ specimens.

This species is oligotropic; the female gets her pollen exclusively from flowers of *Passiflora lutea*.

Perditella boltoniæ, sp. nov.—♀. Head and thorax greenish, shining, finely roughened, sparsely punctured; pubescence thin, pale; basal joint of labial palpi longer than the next three together; mandibles, except base, rufous; clypeus whitish; facial foveæ linear; legs dark, tarsi testaceous, claws simple; tegulæ pale testaceous; wings hyaline, nervures pale, subcostal nervure and borders of stigma and marginal cell darker; marginal and first cubital cells about equal, a little shorter than stigma; cubital cell 2 narrowed about $\frac{2}{3}$ towards marginal, receiving recurrent nervure 1 just within, recurrent 2 interstitial with the second transverse cubital; third discoidal cell present; abdomen depressed, obovate, blackish, segments 2-3 each with a linear whitish band on each side of base. Length, 5 mm.

♂.—Resembles the female; third discoidal cell wanting; second cubital cell more strongly narrowed above; cheeks dentate; claws cleft; mandibles, except tips, labrum, clypeus, two small spots on each side above, scape in front, anterior tibiæ in front, and tarsi, whitish; abdomen without fasciæ, apical margins of segments narrowly pale testaceous, apex reddish. Length, 5 mm.

Carlinville, Illinois; 1 ♀, 5 ♂ specimens. Three male specimens have the scape dark, one has the labrum dark, one has no spots on face outside of clypeus. The second recurrent nervure in the male is evident in certain lights, but there is no thickening.

The female collects pollen of *Boltonia asteroides*. I regard it as an oligotropic visitor of that plant, but the female may get pollen from some other species of Compositæ.

Anthidium psoralæ, n. sp.—♀. Black, rather opaque, closely punctured; wings nearly hyaline, basal nervure ending before transverse medial, second recurrent nervure interstitial with second cubital; pulvilli wanting; mandibles with seven teeth; apex of clypeus with two teeth on each side; segment 6 of abdomen longitudinally carinate, apex bidentate, strongly sinuate laterally, with a lateral tooth; yellowish white ornaments as follows: longitudinal stripe on each side of vertex, spot on tegulæ in front, line above, spot on each side of base of scutel, and two lines on apical margin, lateral fasciæ greatly indented anteriorly on segments 2-5, broken in two on 1. Length, 11 mm.

♂. Segment 6 of abdomen with an incurved tooth on each side, 7 with three prominent teeth, lateral ones broad, with an incurved point, median one slender; ventral segments 4-5 emarginate, 6 with broad produced median portion, sides of its base sinuate; yellowish-white ornaments as follows: mandibles, clypeus, sides of face, longitudinal stripe on each side of vertex, dot on tubercles tegulæ in front, two lines on scutel, dot on anterior and middle knees, apex of tibiæ, metatarsi, two large lateral and two small discal spots on segment 1 of abdomen, anteriorly indented lateral fasciæ on segments 2-5, and two discal comma-shaped marks on 6. Length, 12 mm.

Carlinville, Illinois; 5 ♀, 14 ♂ specimens. One female has no line above tegulæ, three have no spots on sides of base of scutel. One male has no lines on scutel, four have no dots on anterior knees, five have none on middle knees, twelve have no discal spots on segment 1 of abdomen, one has the lateral fascia on segment 2 broken in two, four have no dots on tubercles.

Dianthidium boreale, n.sp.—♂. Closely resembles *D. notatum*, Latr., but the abdominal segments 6-7 have a median carina, which in the latter terminates in a tubercle; segment 6 has on each side an elevated portion, each terminating in a discal subapical tooth and a lateral apical one; pulvilli present; wings clouded, basal nervure almost interstitial with transverse medial, second recurrent nervure passing beyond second cubital; antennæ black; legs red, anterior and middle knees, apex of tibiæ and metatarsi, yellow; other yellow ornaments as follows: mandibles, face below antennæ, transverse line on vertex, tubercles, tegulæ in front, line above, four spots on scutel, large spot on each side of segment 1, arcuate fascia on each side of 2, two discal and two lateral spots on each side of 3-5, a large spot on each side of 6 covering the elevated portion, and all except base of 7. Length, 8 mm.

Carlinville, Illinois; 1 ♂ specimen.

Among several other good characters of *Dianthidium* may be mentioned the well-developed pulvilli.

Stelidium gn. nov., *trypetinum* sp. nov.—♀. Black; pubescence thin, pale; punctures coarse and close; mandibles narrow, tridentate, rufous before apex; maxillary palpi one-jointed; cubital cell 2 longer than 1, receiving both recurrent nervures about equally distant from base and apex; scutel simple; abdomen strongly conical; segment 6 longer than 5, apical margin carinate; ventral segment 6 longer than 5, nearly as long as wide, produced beyond dorsal segment, with a subapical carina; nearly obsolete whitish ornaments as follows: narrow anterior orbits, transverse spot on each side of vertex, four widely-separated equidistant spots near apical margins of segments 1-3. Length, 5 mm.

Carlinville, Illinois; 2 ♀ specimens. The venation, structure of abdomen, and the ornaments mark this as quite a peculiar form. I am quite sure it is an inquiline of *Trypetes carinatus*.

Melissodes vernoniæ, sp. nov.—♀. Black, clothed with pale whitish or griseous pubescence; some black hairs on the vertex in front, a subquadrate patch on the mesonotum and the scutel also with black hairs; hind metatarsi blackish beneath; segment 2 of abdomen has a narrow basal and a broader median whitish fascia; segments 3 and 4 with broad fasciæ reaching the apex of 4, and nearly reaching the apex of 3; segments 5 and 6 with pubescence black or fuscous; wings hyaline, nervures testaceous; middle of mandibles rufous; flagellum testaceous beneath. Length, 12-14 mm.

♂.—Resembles the female; pubescence nearly white throughout, thin on mesonotum posteriorly and on scutellum where it is sometimes a little blackish; clypeus, spot on base of mandibles and on labrum white; antennæ yellowish, darker above, joint 3 about twice as long as 2; wings hyaline, nervure pale, much paler than in female; segments of abdomen with broad, pale, testaceous apical margins, 2-6 with submedian narrow, arcuate, whitish pubescent fasciæ, segments 5-7 with lateral spines. Length, 13 mm.

Carlinville, Illinois; 21 ♀, 15 ♂ specimens.

The female gets her pollen exclusively from *Vernonia fasciculata*. The male is quite white and resembles a large specimen of *M. nivea*.

In my neighbourhood there are three species of bees which have been referred to *Xenoglossa*. *Melissodes strenua*, Cr., is evidently a true *Xenoglossa*. It is proposed here to make *Macrocera pruinosa*, Say, the type of a new genus, *Peponapis*, and *X. ipomææ* the type of a new genus, *Cemolobus*. In its group *Xenoglossa* is remarkable for having the antennæ of the male of the same form as in the female. In *X. strenua* the secondary sexual characters are reduced to a minimum, the mandibles, antennæ and claws of the male being about the same as in the female, and the clypeus of the female usually marked with yellow. The three species may be separated as follows:

Females.

Claws with a short inner tooth, that of the hind claw about one-fourth as long as the outer division; clypeus trilobed; mandibles with a distinct exterior angle; joint 2 of maxillary palpi nearly as long as 3-5, 4 nearly as long as 4+5; scopa nearly black; abdomen nearly black, with appressed glittering hairs; first cubital cell shorter than the third, hardly longer than the second.....*C. ipomææ*.

Claws cleft, inner tooth of hind claw more than one-half as long as the outer division; clypeus entire; scopa ochraceous.....1.

1. Mandibles with an internal tooth at base; maxillary palpi with joints 2-5 regularly diminishing in length; abdomen with more or less interrupted fasciæ of appressed ochraceous pubescence; cubital cell 1 a little shorter than 3, much longer than 2.....*X. strenua*.

Mandibles at apex bidentate; joints 2 and 3 of maxillary palpi subequal, 3 = 4 + 5; segments 2-4 of abdomen with whitish pubescent fasciæ; cubital cell 1 about as long as 3, twice as long as 2.....*P. pruinosa*.

Males.

Hind claws long, with a very short inner tooth; hind metatarsus arcuate, bevelled at the expense of its posterior inferior border, produced anteriorly; mandibles at apex bidentate, exterior angle spined; clypeus trilobed, with transverse apical whitish band; joint 3 of antennæ about as long as 4, 5-12 slightly diminishing in length; segments 6 and 7 of abdomen with dentiform lateral apical angles.....*C. impomææ*.

Hind claws cleft; hind metatarsus simple; clypeus entire.....1.

1. Joint 3 of antennæ = 4 + 5; base of mandibles yellow, with an internal tooth; clypeus largely yellow; segments 5 and 6 of abdomen with lateral basal spines, stronger on 6.....*X. strenua*.

Joint 3 of antennæ about one-third as long as 4, 5-12 slightly diminishing in length; mandibles tridentate, base black; clypeus with yellowish spot; apex of abdomen without spines.. *P. pruinosa*.

DESCRIPTIONS OF NORTH AMERICAN BEES.

BY H. L. VIERECK, PHILADELPHIA, PA.

Coelioxys Foxii, n. sp.

Coelioxys vigilans, Fox, not Sm. Tr. Am. Ent. Soc., XVIII., 344, 1891, ♀ ♂.

Conspicuous by its deeply-punctured thoracic dorsum and the orange to yellowish pubescence.

♀. Length, 10.5 mm. Clypeus rugose, with close, large, poorly-defined punctures, covered with a fine whitish pubescence, and having a whitish moustache; sides of the face covered with a yellowish appressed pubescence; near the ocelli this becomes erect; around the latter the hairs are dark brown, and form an erect fringe; a raised space in front of anterior ocellus, tapering down in front to a point terminating between insertion of antennæ, has a longitudinal impressed line along the middle on its lower half, and branches up to on each side of the anterior ocellus impunctate, dullish, the space between and surrounding punctured; an impunctate space between lateral ocelli and eye margins; top of the head punctured, dullish, the punctures smaller than those on dorsulum, almost bare; cheeks with appressed pubescence paler than that on sides of face. Dorsum of thorax with large deep punctures, shining, the punctures on dorsulum usually well separated, those on scutellum sparse, a narrow longitudinal area on the middle of scutellum impunctate; a semi-circular collection of appressed pubescence on scutellum, a spot of